

Recognition and Treatment of Obsessive Compulsive Disorder

**M. Katherine Shear, M.D.
University of Pittsburgh School of Medicine**

**R. Bruce Lydiard, MD, PhD
University of South Carolina
& Southeast Health Consultants**

**Nicholas G. Ward, MD
University of Washington School of Medicine**

Diagnostic Criteria For Obsessive-Compulsive Disorder

- Obsessions:
 - 1) recurrent or persistent thoughts, impulses, or images are experienced as intrusive or inappropriate and cause distress
 - 2) not simply excessive worries about real-life problems
 - 3) person attempts to ignore or suppress thoughts or neutralize them with another thought or action
 - 4) person recognizes that obsessions are product of his/her mind, not imposed from without

Diagnostic Criteria For Obsessive-Compulsive Disorder (cont.)

- Compulsions:
 - 1) (1)repetitive behaviors or mental acts performed in response to an obsession or according to certain rules
 - 2) designed to neutralize or prevent discomfort or some dreaded event or situation
- The obsessions and compulsions cause marked distress, are time-consuming, or significantly interfere with normal routine, occupational functioning, or usual social activities or relationships with others

Obsessions in OCD

- Contamination
- Pathological doubt
- Aggressive impulse
- Somatic concerns
- Need for symmetry
- Sexual impulse

Content of Primary Obsessions (n=425) DSM-IV OCD Field Trial

- Contamination 37.8%
- Fear of harm 23.6%
- Symmetry 10.0%
- Somatic 7.2%
- Religious 5.9%
- Sexual 5.5%
- Hoarding 4.8%
- Unacceptable urges 4.3%
- Miscellaneous 1.0%

Compulsions in OCD

- Washing
- Checking
- Counting
- Symmetry and precision
- Need to ask or confess
- Hoarding

Rasmussen & Eisen (1992a) Zetin & Kramer (1992)

Mental Compulsions

(Conscious Production of Thoughts in Reponse to Obsession)

- Involuntary/irresistible Quality
- Examples:
 - Special words, images, numbers recreated mentally to neutralize anxiety
 - Special prayers repeated in a set manner
 - Mental counting
 - Mental list making
 - Mental reviewing

Frequency of Compulsions DSM-IV OCD Field Trial

• Checking	28.3%
• Cleaning/washing	26.6%
• Miscellaneous*	11.8%
• Repeating	11.1%
• Mental rituals	10.9%
• Ordering	5.7%
• Hoarding/Collecting	3.5%
• Counting	2.1%
• Miscellaneous	1.0%

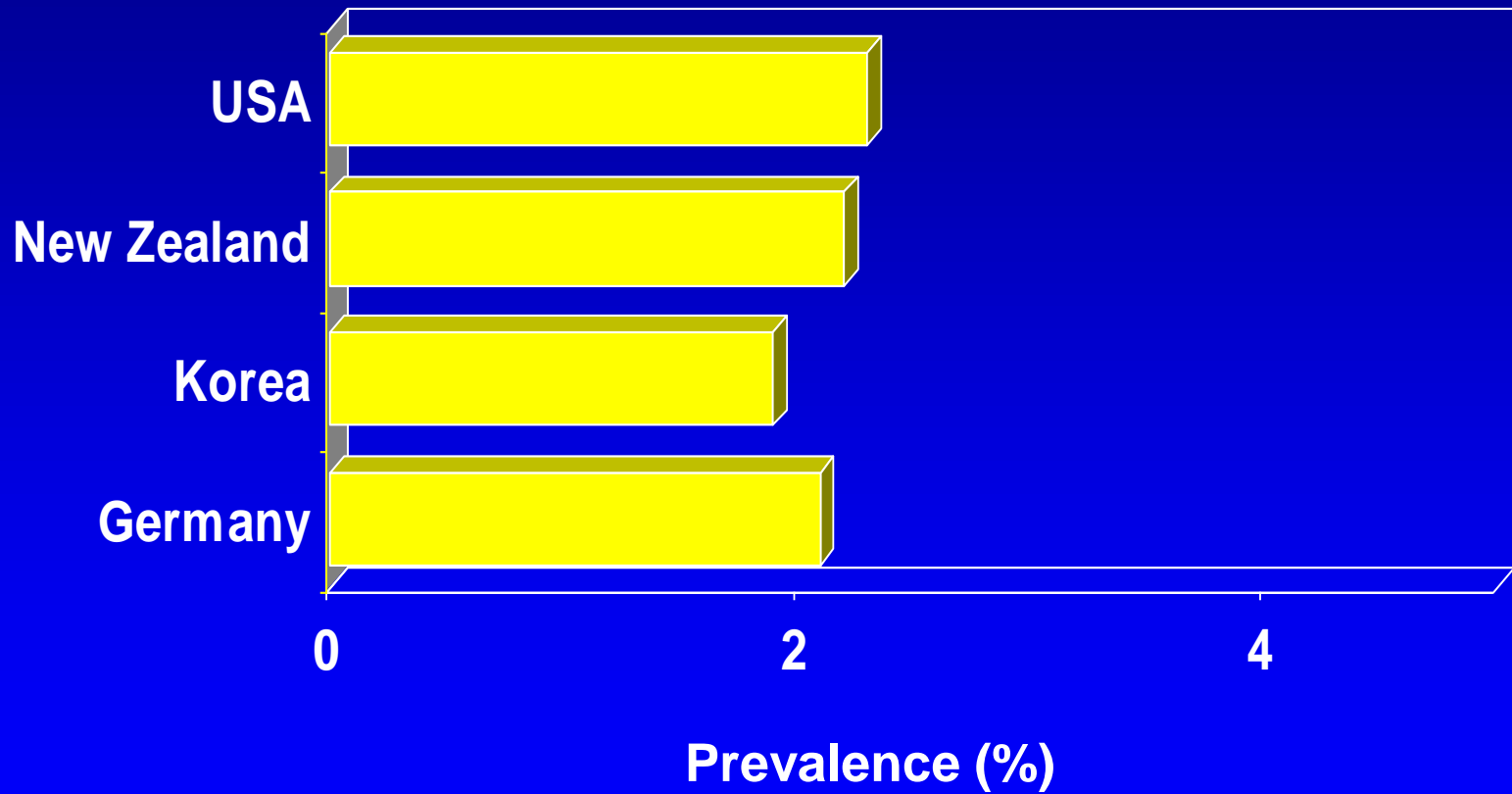
*commonly list-making; need to tell, ask confess,
or self damaging/self-mutilating behaviors

Epidemiology of OCD

- One-month prevalence 1.3%
- Life time prevalence 2.5%
- Estimated number of persons with OCD in 1990: 3.9 million

ECA Study, Reiger et al., 1983

Lifetime Prevalence of OCD

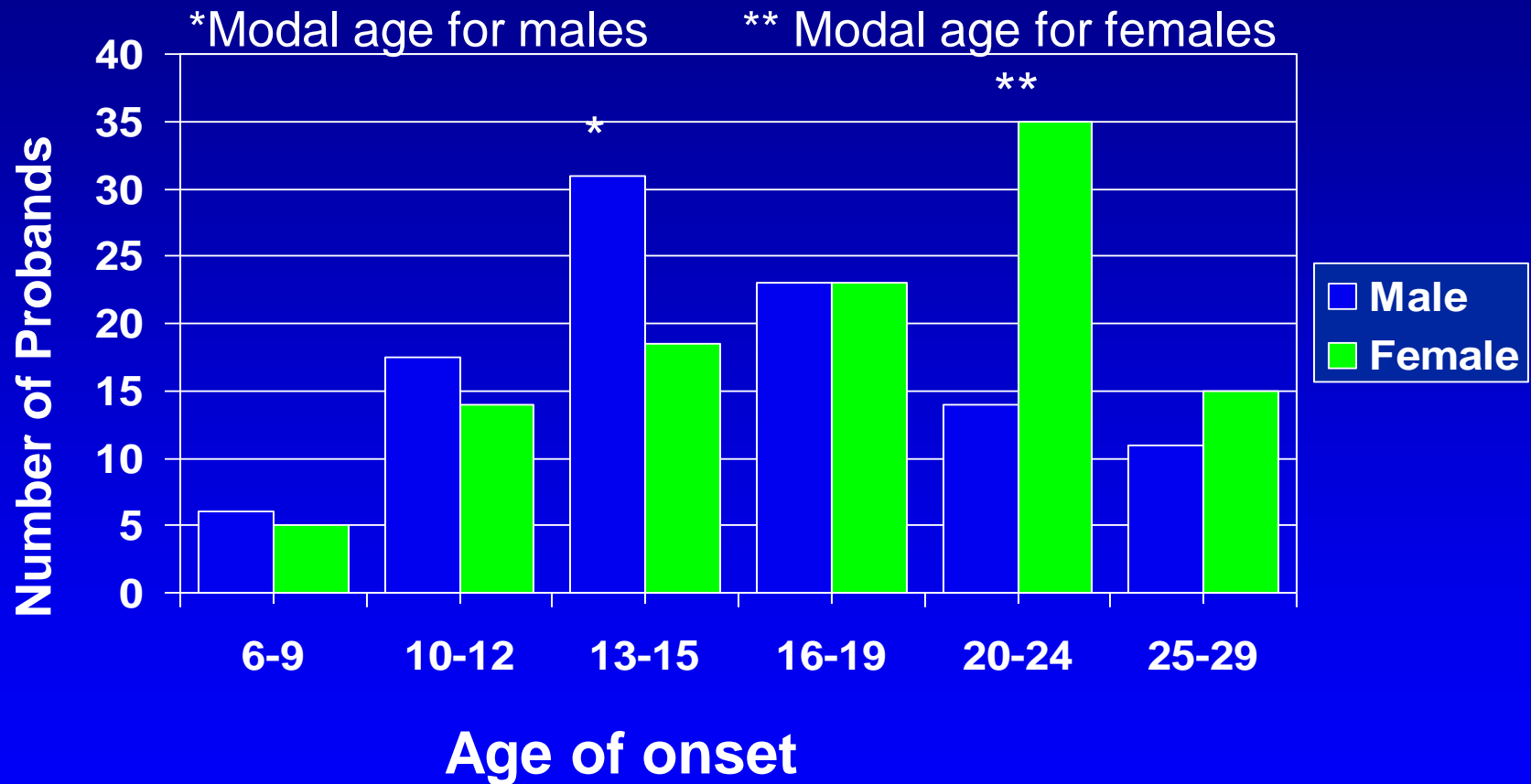


Demographics of OCD

- Average age of onset 20
 - in males 18
 - in females 21
- Of 59 mothers with OCD, 23 (39%) developed OCD during pregnancy

Brown Obsessive Compulsive Study

Age of Onset of OCD



OCD

Obsessions vs. Delusions

Obsessions

- Doubt
- Minute possibility
- Insight

Delusions

- Certainty
- False/bizarre/impossible
- No insight

Genetic & Family Studies in OCD

- Twin Studies
 - 32 (63%) of 51 monozygotic twins were concordant for OCD in case reports
- Family Studies
 - 21-25% of nuclear family members of probands have OCD
 - 17% have subclinical obsessive compulsive symptoms
 - 5% have multiple tics

Neuroanatomical Areas Implicated in OCD

- Cingulus
- Basal ganglia
- Frontal lobe

Biochemical Abnormalities in OCD

- Elevated
 - Somatostatin
 - Vasopressin
 - CRH
- Unchanged
 - Serotonin

Coexisting Axis I Diagnosis in Primary OCD (n=100)

<u>Diagnosis</u>	<u>Current n=100</u>	<u>Lifetime n=100</u>
Major depressive disorder	31%	67%
Simple phobia	7%	22%
Separation anxiety disorder	--	21%
Social phobia	11%	18%
Eating disorder	8%	17%
Alcohol abuse (dependence)	8%	14%
Panic disorder	6%	12%
Tourette syndrome	5%	7%

Family and Interpersonal Functioning

OCD patients have a high rate of family and interpersonal problems

Family Accommodation in OCD

88% of families engaged in accommodation
accommodation correlated with

- patient anxiety ($r=0.63$, $p = 0.0001$) and patient anger ($r=0.68$, $p = 0.0001$) upon refusal

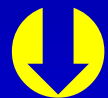
refusal associated with

- verbal (24%) and/or physical (6%) abuse by patient
- severe (24%) or disabling (9%) patient anxiety

Family Accommodation in OCD

- **accommodation** correlated with
- patient rejection scores ($r=0.67$, $p = 0.0001$)
- **perceived family dysfunction**, including problem solving, communication, roles, affective responsiveness and involvement, and general functioning
- **family stress** including patient dependency and need for management, limits on family opportunity, family disharmony, lack of personal reward and personal burden

Negative family attitudes and family accommodation are associated with poor outcomes in OCD



Need to include family in OCD treatment

Steketee 1993, Leonard et.al. 1993

Interpersonal problems

- Increase Symptoms
- Lower Quality of Life
- Interfere With Treatment Alliance and Increase Attrition

OCD: Treatment Guidelines

- Diagnosis
- Anti-obsessional agent for 10 weeks
- If inadequate response
 - taper
 - second agent for 10 weeks
- If inadequate response
 - taper and third agent or
 - augmenting agent
- Treat for 6 - 12 months

Treatment Approach for OCD Patients

- Diagnostic assessment
- Initial treatment choice
- Response monitoring and treatment adjustment
- Attention to family and interpersonal problems

Diagnosis

- Detection
 - Patient reticence (shame, embarrassment, denial, avoidance, acceptance of symptoms)
 - Comorbidity may mask diagnosis
- Differential diagnosis
 - Depression
 - GAD, Panic
 - Hypochondriasis

Initial Treatment Choice

- Behavior Therapy (Exposure and Response Prevention)
- Pharmacotherapy (SSRI)
- Combination

Behavior Therapy for OCD

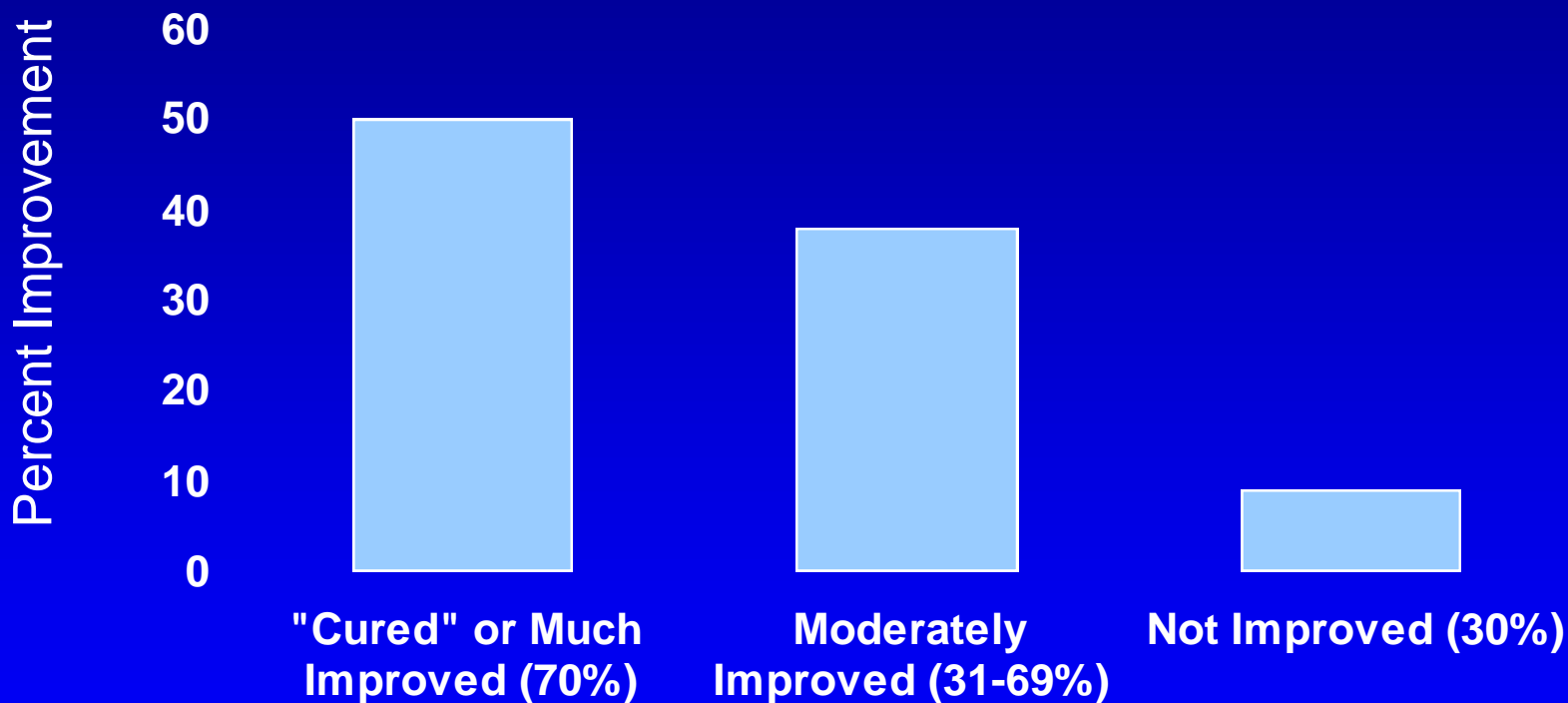
Exposure and Response Prevention

- Systematic and intensive treatment
- Stimuli for rituals and avoidance identified and assigned a place in a hierarchy of anxiety provocation
- Intensive exposure to stimuli is done both with therapist and as homework
 - Exposure is graded from easiest to most difficult
 - Rituals omitted - or, if not possible, delayed

Outcomes with Behavior Therapy in OCD

18 Studies with 273 patients in different countries treated by different therapies employing exposure and response prevention

Foa EB et al. 1985



At follow-up ranging from months to years, 76% remained improved (Range, 60-87%)

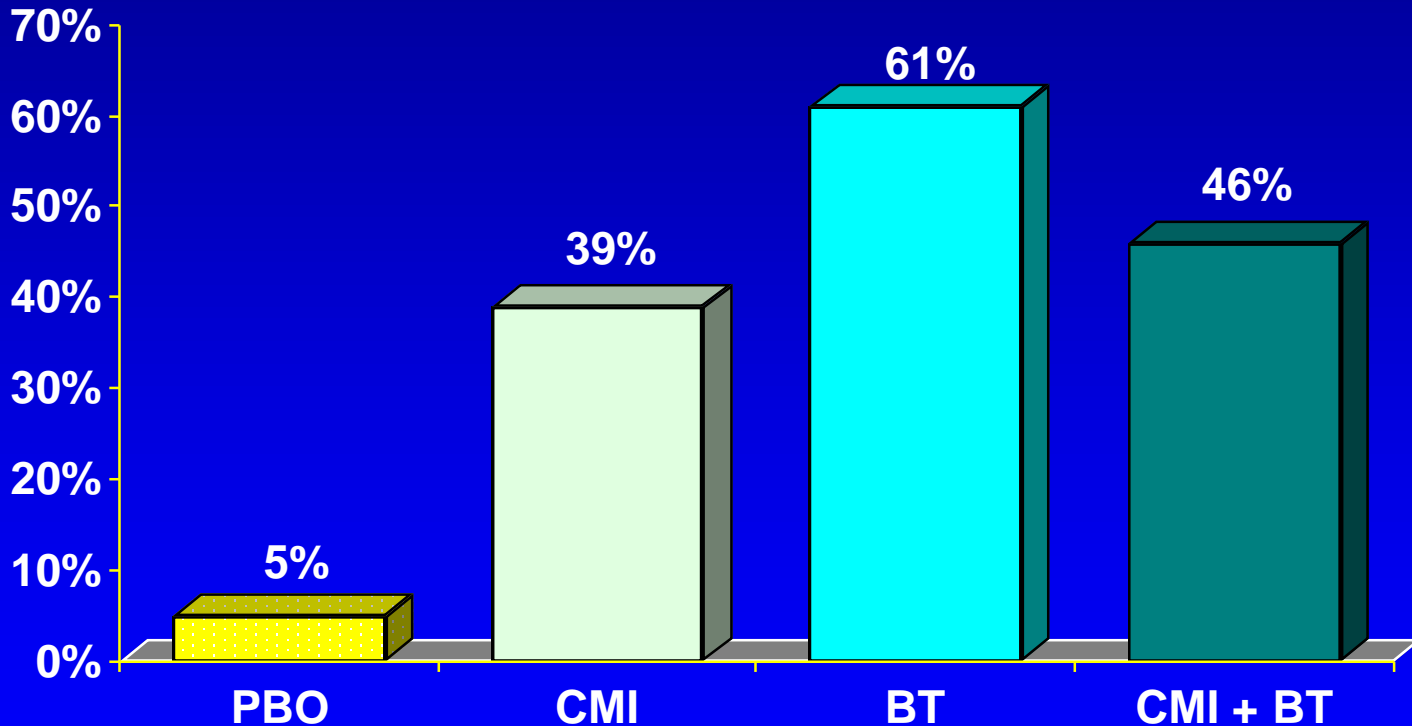
Average YBOCS Change Score vs. Behavior Therapy

- Medication: SSRI decreased 6 points
 - Clomipramine decreased 9 points (may be 2^o to more severe patients in the clomipramine trials than in SSRI trials)
- Behavior (Exposure/Response Prevention) decreased 10 points
- Combined decreased 12 - 14 points? (In at least one study BT alone better than combination)

Conditions That Decrease Response to Behavior Therapy

- Depression
- CNS depressing drugs
- Delusions
- Schizotypal and personality disorders
- Non-compliance
- Obsession only (rare)
 - No physical or mental compulsion to treat by exposure and response prevention

Intent to Treat Response Rates in Drug-Psychotherapy Comparison Study



CMI = Clomipramine, BT = Behavior Therapy, PBO = pill placebo

Serotonin Hypothesis

- Serotonin reuptake inhibitors are effective in OCD
- Serotonin is implicated in OCD
- Chronic treatment down-regulates serotonin receptors

McDougle et al (1992)

Serotonergic Antidepressants For OCD

- Minimum duration of treatment: 10-12 weeks
- Doses:
 - clomipramine 250 mg/day
 - fluoxetine 60 mg/day
 - fluvoxamine 300 mg/day
 - sertraline 50-200 mg/day
 - paroxetine 60 mg/day
- Maintenance therapy prevents relapse
- Risk of relapse 2.7 times greater with placebo than paroxetine

Medication Choice

<u>Medication</u>	<u>Start</u>	<u>Target</u>	<u>Max</u>	<u>Comment</u>
Fluoxetine	20mg	40-60mg	80mg	long half-life 4-16 days
Fluvoxamine	50mg	200mg	300mg	short half-life 13-15 hours
Paroxetine	20mg	50mg	60mg	half-life 21 hours
Sertraline	50mg	150mg	225mg	half-life 26 hours

March et al Expert Consensus Guidelines
J. Clin Psychiatry vol 58 supplement 4 1997

Placebo Response Rates in OCD

Patients (%)

Depression excluded

Montgomery 1980

5.0

DeVeugh-Geiss et al 1989

4.0

Depression partially excluded

Thoren et al 1980

7.0

Chouinard et al 1990

6.5

Kozac et al 1992

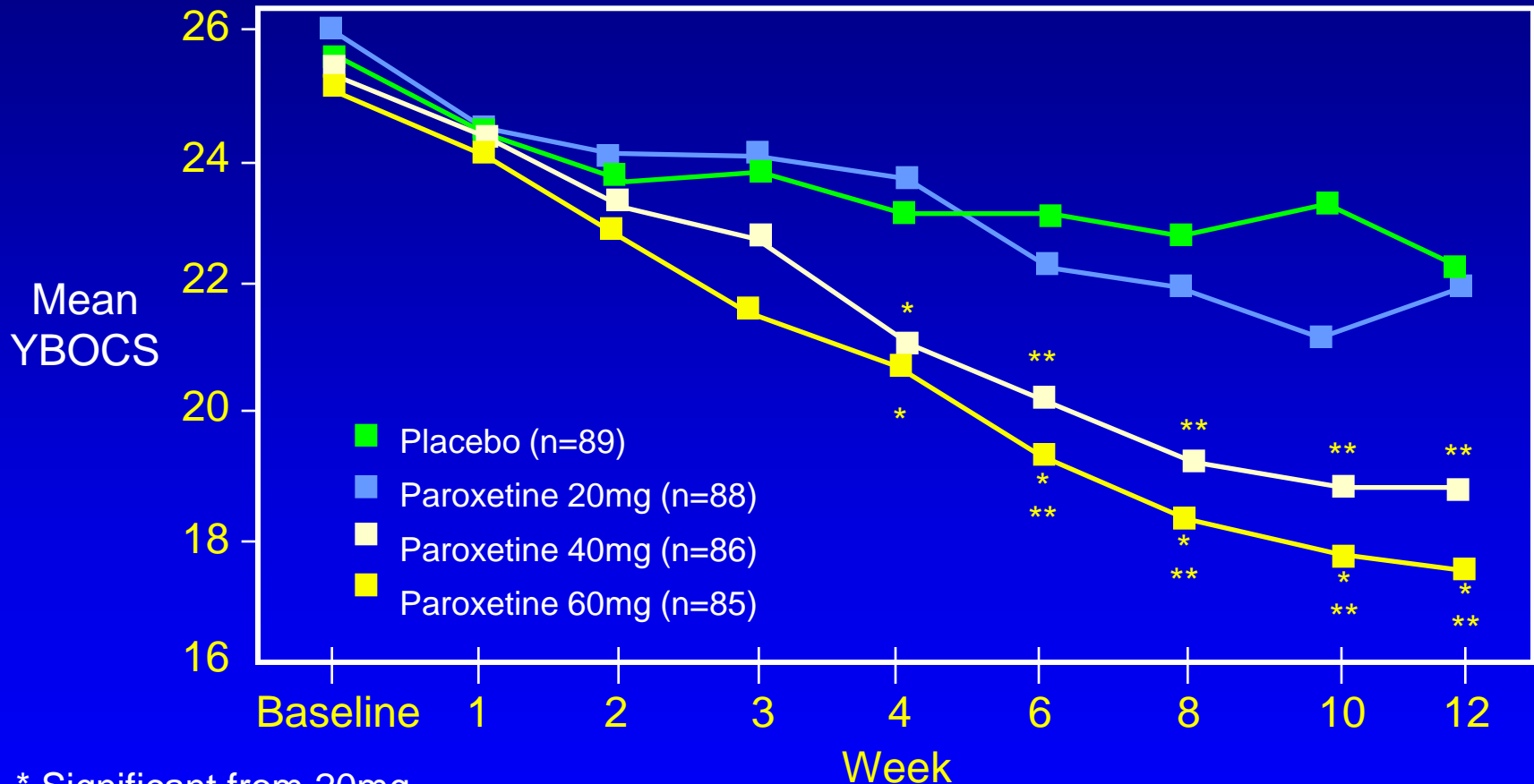
7.2

Greist et al 1992

7.5

Efficacy Of Paroxetine In OCD

Acute Treatment



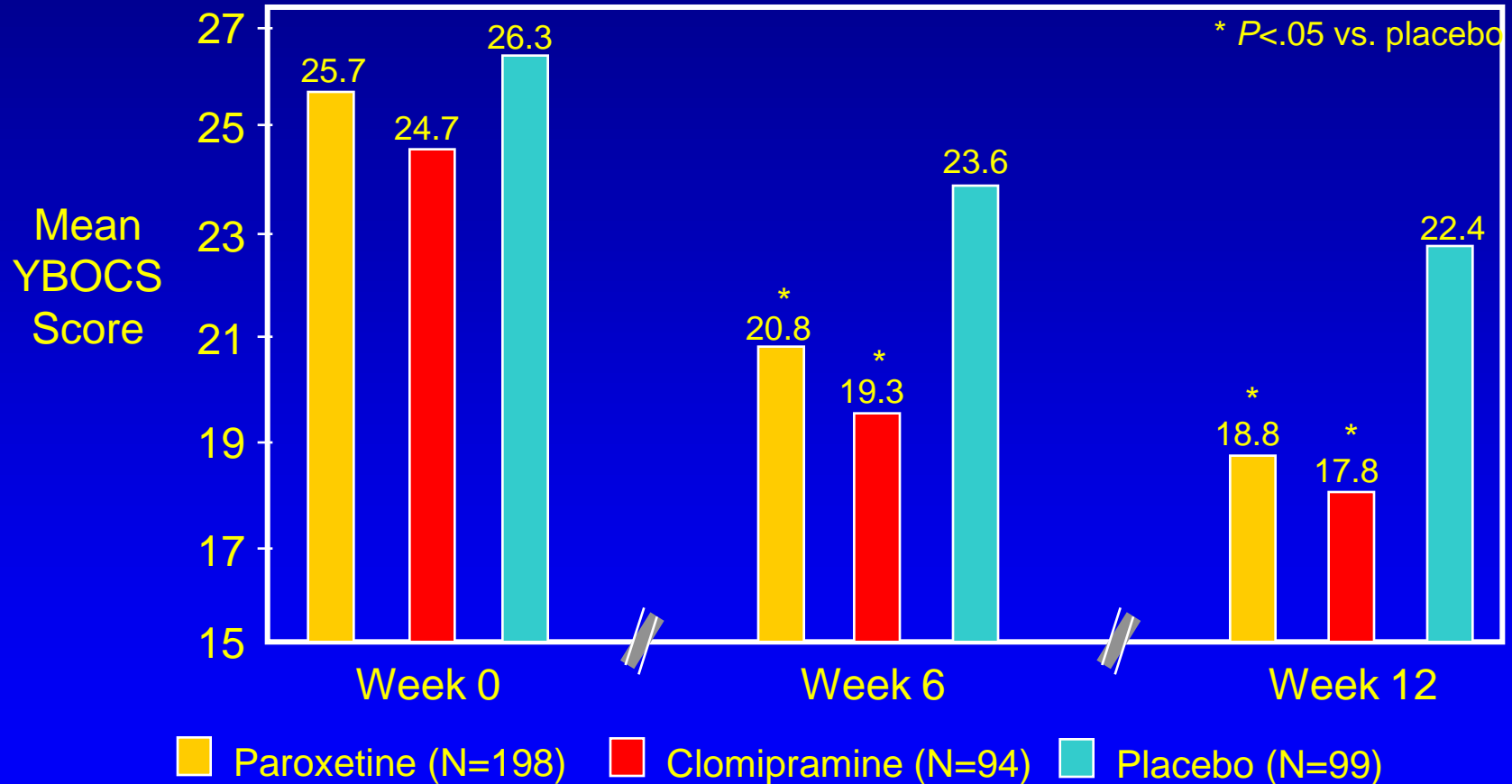
* Significant from 20mg.

** Significant from placebo

Wheadon et al. Presented at American College of Neuropsychopharmacology Meeting, December, 1993.

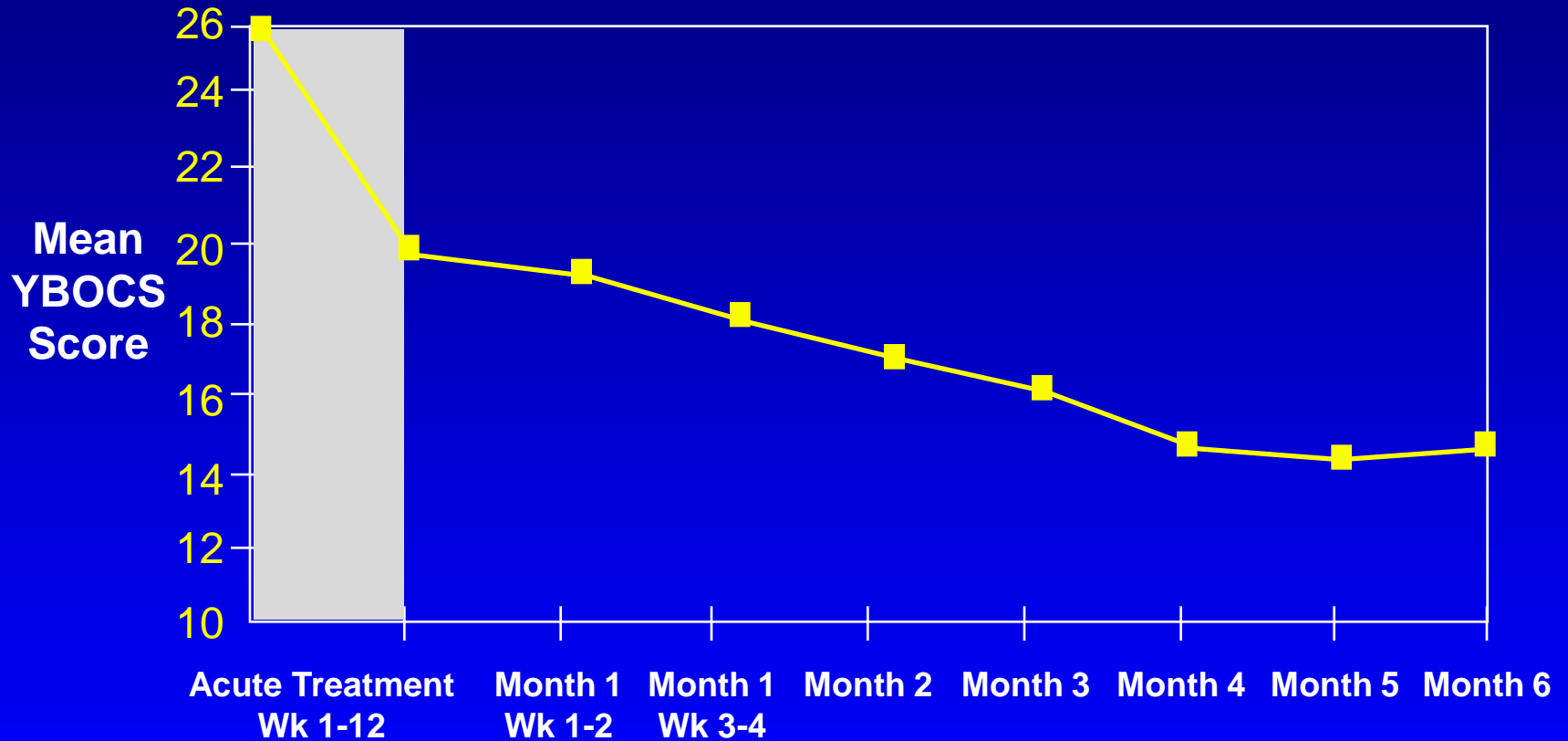
Efficacy of Paroxetine And Clomipramine In OCD

Acute Treatment



Zohar and Judge Presented at Association of European Psychiatry meeting. Copenhagen, 1994.

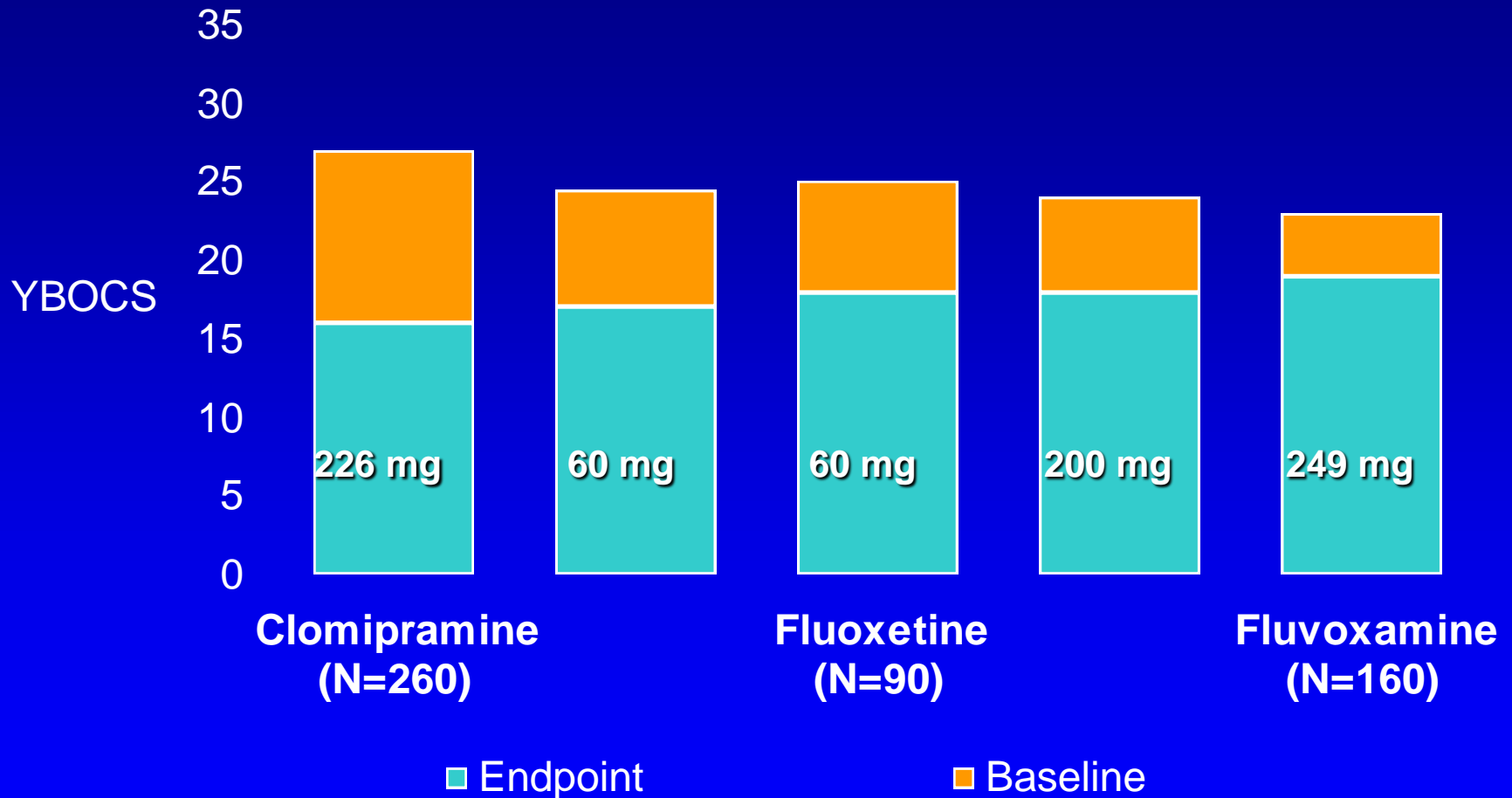
Efficacy Of Long-Term Paroxetine Treatment of OCD



Steiner et al. Presented at Annual Meeting of American Psychiatric Association. Miami, May 1995.

Comparison Of SSRIs In OCD*

Meta-Analysis



*Mean optimal doses shown.

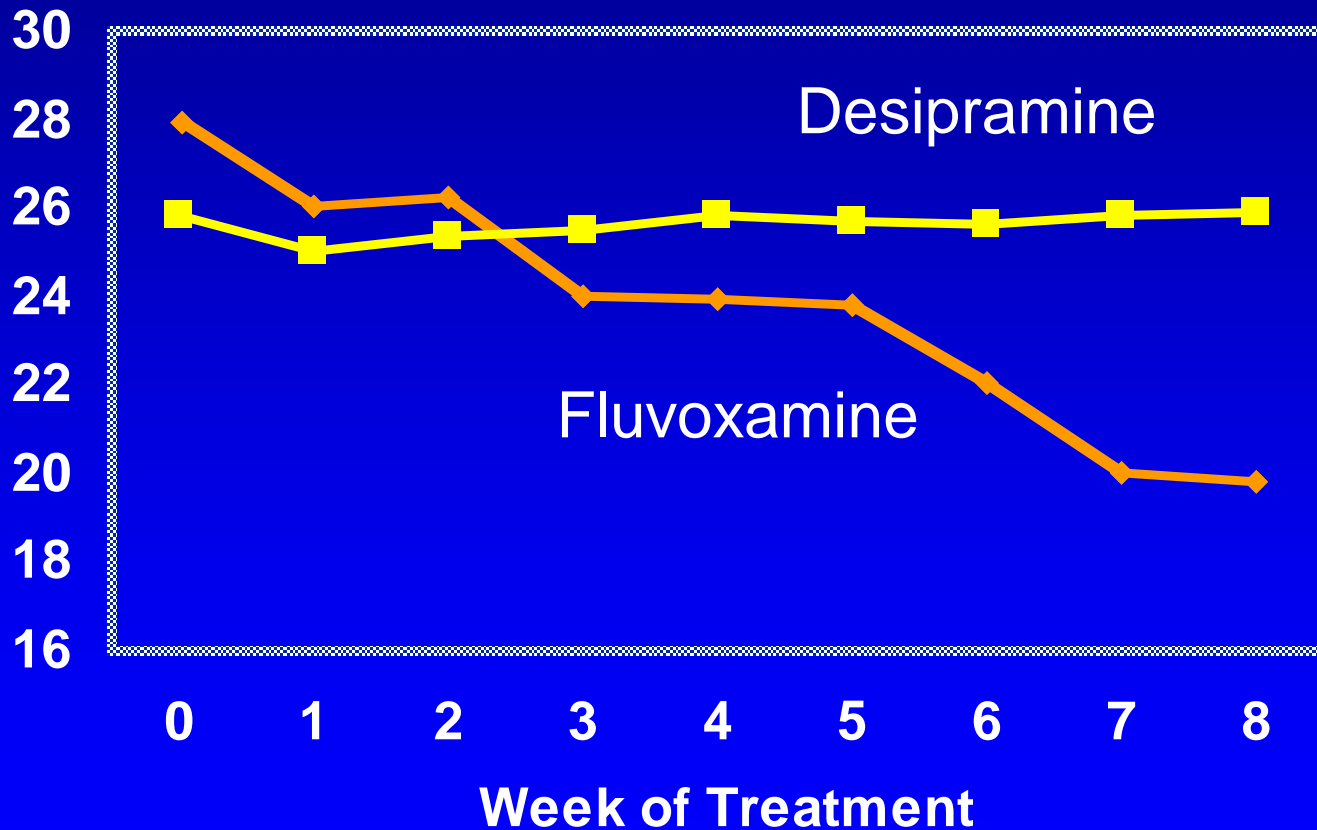
Greist et al. *Arch Gen Psychiatry*. 1995;52:53. Pigott. *J Clin Psychiatry*. 1996;57(suppl 6):11.

Efficacy of Serotonergic Antidepressants in OCD

- 10-15% full remission
- 70% some response
- Average partial responder - 40% decrease in symptoms
- Chronic treatment needed - 85% relapse 1-2 months after D/C

Change in Y-BOCS on Fluvoxamine vs. Desipramine

n = 42

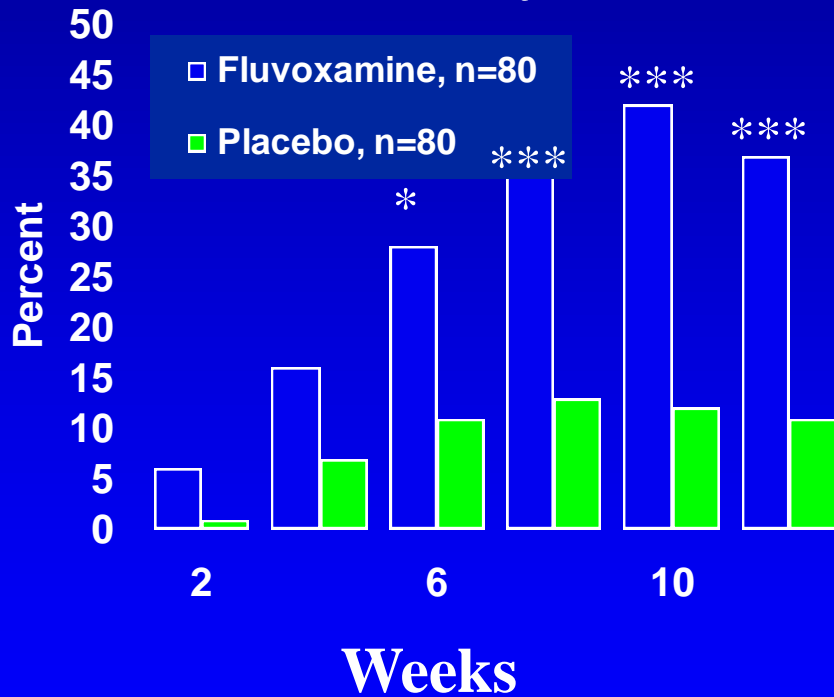


Fluvoxamine v Placebo

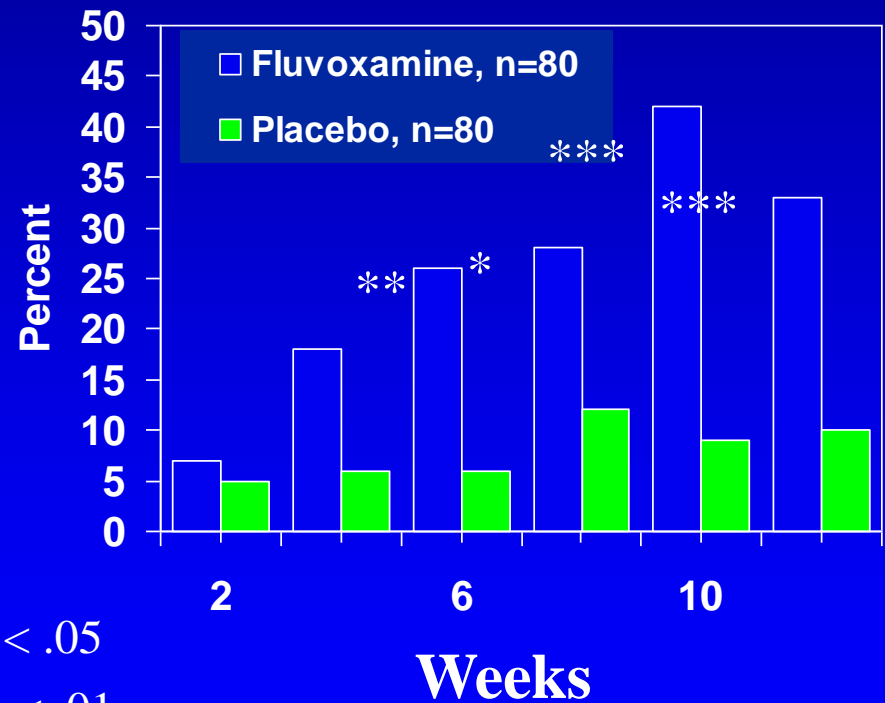
Mean CGI = Global Improvement Item

Percent Responders (Much or very much improved by CGI)

Study 1



Study 2



*p < .05
**p < .01
***p < .001

Properties of Clomipramine

- Differs from other TCAs in potency at blocking serotonin reuptake
- Binds to muscarinic, histaminic, and adrenergic receptors, leading to typical TCA side effect profile
- Active metabolite desmethylclomipramine also blocks norepinephrine reuptake

Clomipramine (Anafranil®) Side Effects (Drug minus Placebo)

Dry mouth	67%
Tremor	52%
Dizziness	40%
Ejaculation failure	40%
Somnolence	38%
Constipation	36%
Sweating	26%
Nausea	19%
Libido change	18%
Weight increase	17%

Properties of Selective SRIs In Contrast to Clomipramine:

- Do not lose selectivity from blocking serotonin reuptake during chronic administration
 - Potency of serotonin reuptake blockade probably more important than selectivity for serotonin
- Do not bind significantly to other receptors
 - Generally fewer troubling side effects

Fluvoxamine (SSRI)

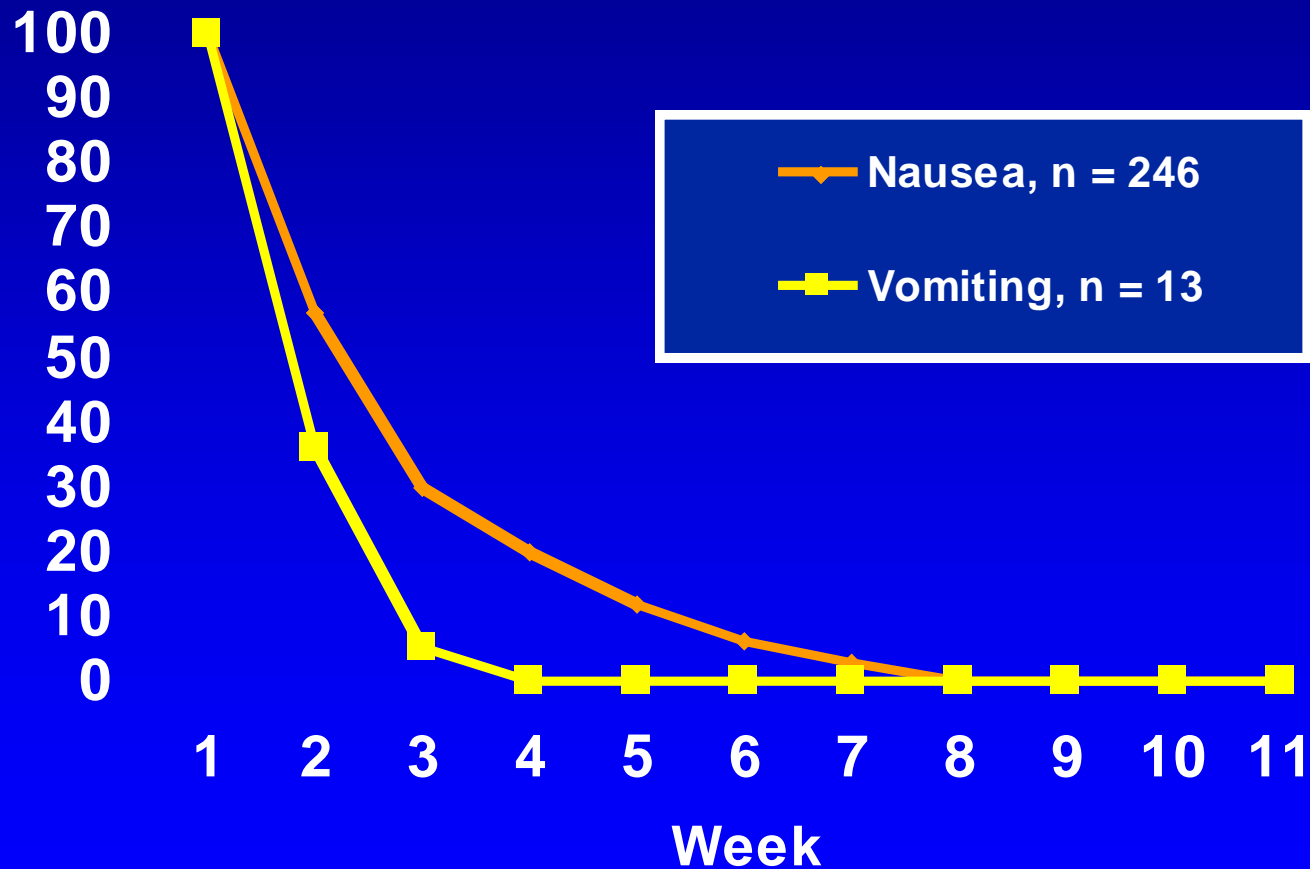
Half - life	15.6 hours
Protein binding	77%
Starting dose	100 mg
Final dose	100-300 mg

Fluvoxamine Side Effects (Drug minus Placebo)

Fluvoxamine, n = 892; Placebo, n = 778

Nausea	26%	21% in OCD pts
Somnolence	14%	
Insomnia	11%	
Asthenia	8%	
Nervousness	7%	
Abnormal (delayed) ejaculation	7%	
Dizziness	5%	
Dyspepsia	5%	

Fluvoxamine Nausea and Vomiting



Fluvoxamine Dosing

- Initial dosing: 50 mg/day
- May increase by 50 mg increments at 4-7 day intervals
- Recommended dose range is 100-300 mg/day

Use Behavior Therapy for OCD “Pharmacotherapy” version

1. Confront the things you fear as often as possible
2. If you feel like you must avoid something, don't
3. If you feel like you must perform a ritual to feel better, don't
4. Continue steps 1, 2, and 3 for as long as possible and repeat frequently

Monitor Treatment

Yale-Brown Obsessive Compulsive Scale (YBOCS)

- Well studied, widely used, brief
- Rates obsessions and compulsions separately:
 1. Frequency
 2. Interference
 3. Distress
 4. Resistance
 5. Control

Y-BOCS Scores and Symptom Severity

	<u>Score</u>
Subclinical	0 -7
Mild	8 -15
Moderate	16 -23
Severe	24 -31
Extreme	32 -40

OCD MAINTENANCE TREATMENT

- Maintenance Treatment probably required for most patients who have good response
- Side Effects can be Problematic
 - Sexual Dysfunction (anorgasmia, decreased libido)
 - Weight gain
 - Sedation

Management Of Maintenance Side Effects

- Weight gain
 - Early recognition
 - Nutritional counseling
- Sexual Dysfunction
 - Preparation of patient
 - Dose adjustment
 - Drug holidays
 - Ancillary pharmacological treatment

Half-Dose Maintenance Therapy of OCD

- n = 130
- None with major depression
- Acute Rx = Clomipramine 150 mg
 - Fluoxetine 40 mg
 - Fluvoxamine 300 mg
- Maintenance conditions and 6 mos. outcome
 - 33 % relapse: Half dose
 - Full dose
 - 80% relapse: No dose

Medication Guidelines In OCD

- Delayed onset of response
 - onset 6-10 weeks
 - maximize dose
 - 12-30 weeks for maximal response
- Expect partial response
 - 25% - 40% improvement
 - full remission is rare
 - 25% fail clomipramine or SSRIs
- Continue effective medication for > 1 year
 - acute (6-10 weeks): full dose
 - chronic (> 30 weeks): 30% - 50% dose reduction
- Taper medication when stopping therapy

Medication Adjustment

Observation

Partial or no response

No response 4-6 weeks

No response to 3 SSRI's

Action

Push dose to maximum in 8-9 weeks

Switch to another SSRI

Augment

The patient who fails 3 different SSRI's

- Re-evaluate the primary diagnosis
- Evaluate the adequacy of the medication trial
- Consider the need for pharmacological augmentation

Reasons For Inadequate Treatment Trial

- Dosage too low
- Duration of treatment insufficient
- Noncompliance
- Counter-exposure behaviors
- Counter-therapeutic environment
 - Family over-compliance with OCD behaviors
 - High EE family

Indications for Pharmacological Augmentation

- Chronic Tics/Gilles de la Tourette
- Psychotic Spectrum (Schizotypal Personality, Psychotic OCD)
- Major Depression
- Panic Disorder
- Social Phobia
- Generalized Anxiety Disorder

Pharmacological Augmentation Strategies

- Comorbid Tic Disorder (Patient or Family History) or Psychotic Spectrum (Schizotypal PD, Psychotic OCD) : Neuroleptic
- Comorbid Generalized Anxiety: Clonazepam or Buspirone (especially in medically ill)
- Comorbid Panic Disorder: Clonazepam
- Comorbid Depression: Lithium or ECT (Suicidality)
- Sleep Disturbance: Trazodone or Clonazepam

Pharmacological Augmentation Strategies

SEVERE OCD

- Fenfluramine
- Miscellaneous Agents
 - Clonidine
 - Hormones (oxytocin, thyroid, anti-androgen)
 - Antiseizure medication

Alternative Treatment

- MAO Inhibitors
 - DO NOT Co-administer
 - Use for Comorbid Social Phobia/Panic Disorder
- IV Clomipramine
- Clozapine
- Psychosurgery

Augmentations for OCD Supported by Data

- 2 Serotonergic agents
- Clonazepam
 - ↓↓ anxiety
 - ↓? OCD
- Antipsychotics
 - tics
 - delusions

Augmentations for OCD Not Well Supported by Data

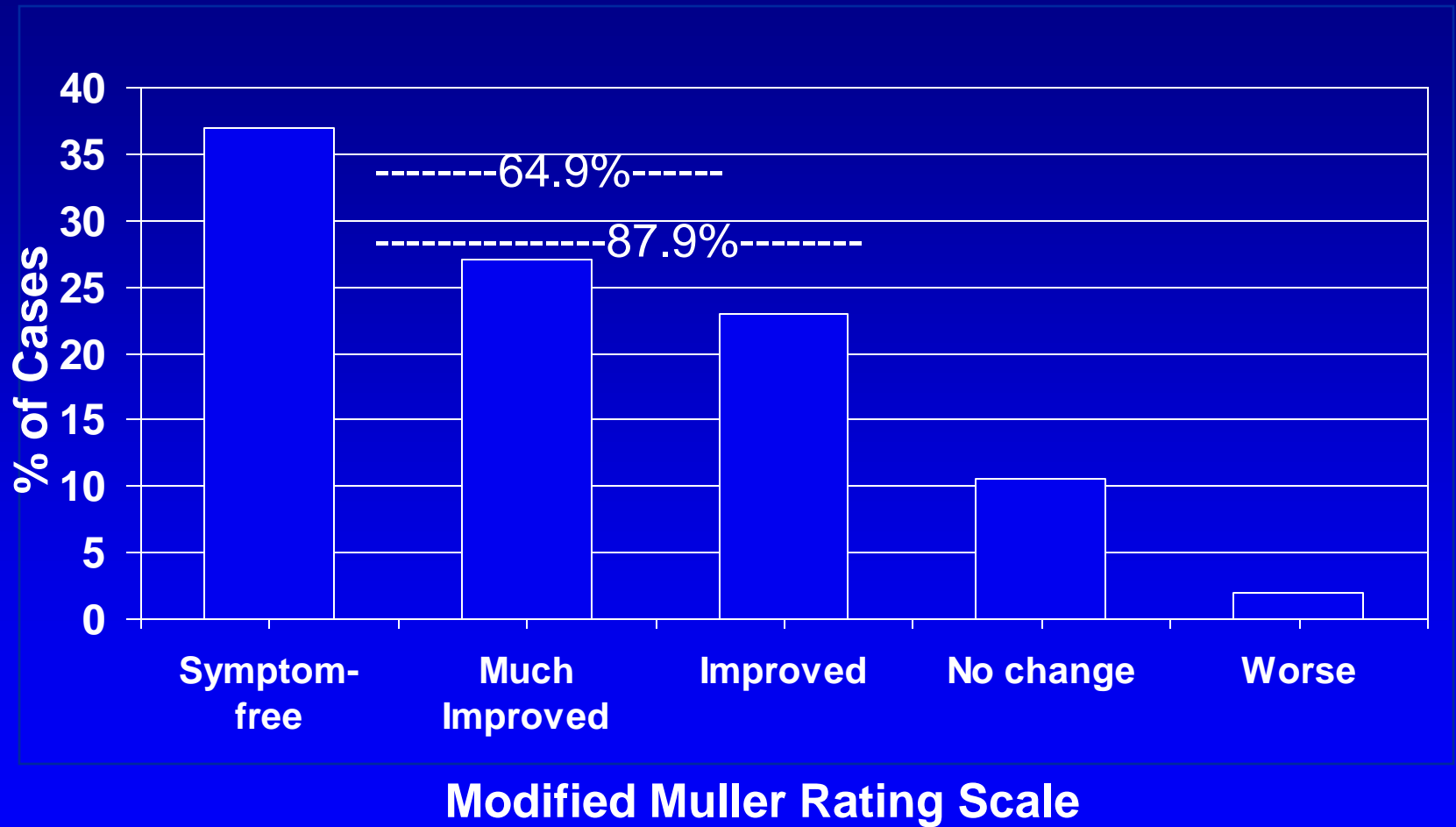
- Lithium
- Buspirone
- Trazodone
- Fenfluramine

Outcomes Reported with Psychosurgery

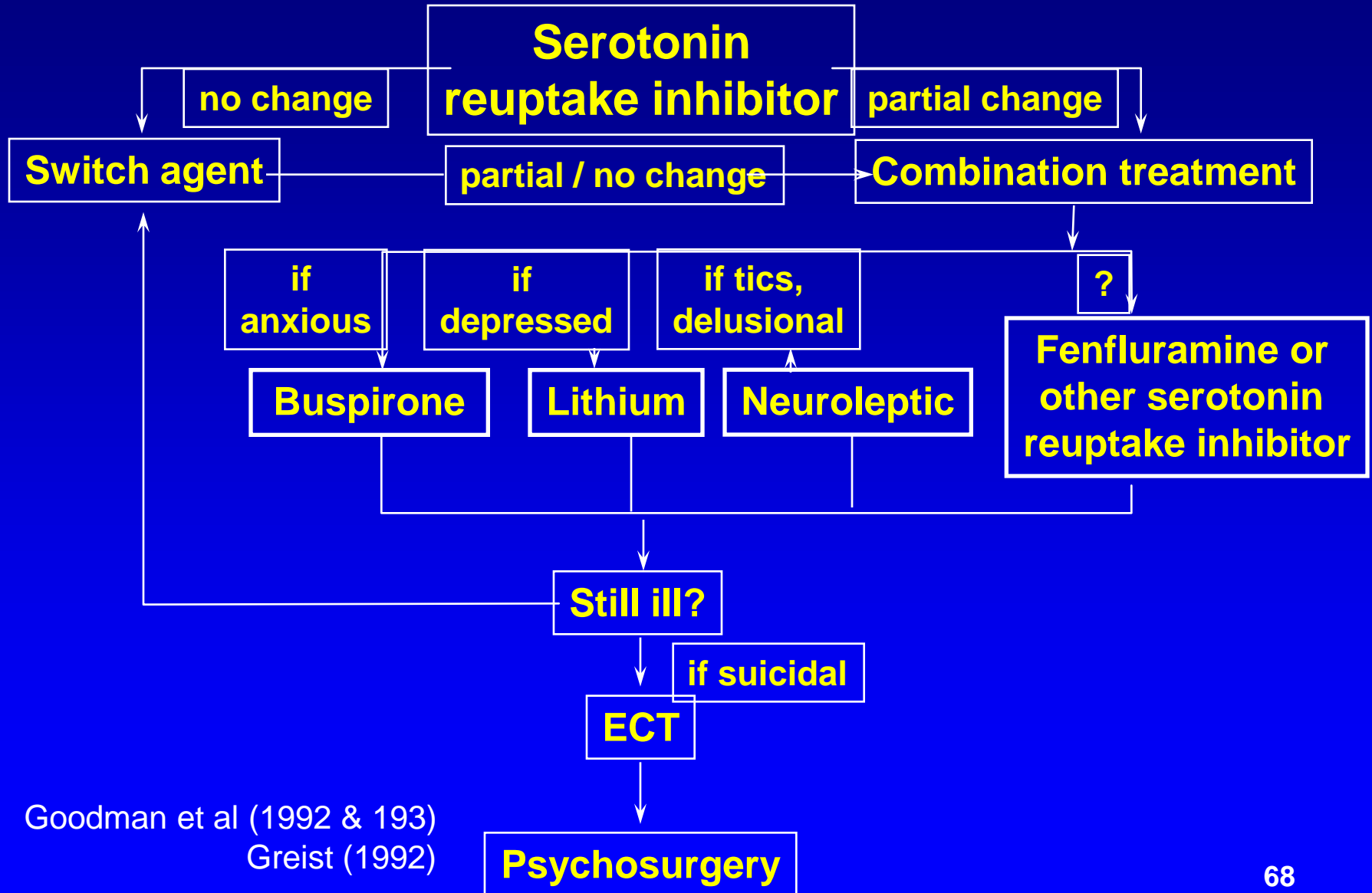
Percent Free of Symptoms or Much Improved OCD

- Cingulotomy 45
- Subcaudate Tractotomy 50
- Limbic Leukotomy 61
- Capsulotomy 67

Postoperative Outcome of Neurosurgery in OCD (n=379)



OCD: Treatment Strategy



Goodman et al (1992 & 193)
Greist (1992)

Summary

- Diagnostic assessment
 - Detect OCD: address patient reticence
 - Be aware of comorbidity
- Initial treatment choice
 - SSRI
- Response monitoring
 - Use YBOCS

Summary

- Treatment adjustment
 - Alternative pharmacotherapy, augmentation
 - Add BT for insufficient response
- Attend to Family/Interpersonal Issues
 - Monitor interpersonal problems, esp. family accommodation

Summary

- Long Term Strategies
 - Ongoing symptom monitoring for all patients
 - Many require long term treatment
 - Use CBT for maintenance if side effects are problematic